Bountiful WiFi Router

Quick Start Guide

V1.2

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1 – Introduction

This Quick Start Guide will help you set up a simple wireless network. These basic instructions are for setting up a wireless connection with no security enabled; Troubleshooting Tip 5 explains how to enable security. For advanced help and other options refer to the Users Manual (available for download at www.BountifulWiFi.com or on the included CD).

Requirements:

- A computer running Windows 2000 or Windows XP that is already connected to the internet.
- The Bountiful WiFi Quick Start Kit:

Router   **Power Adapter**   **Network Cable**   **Antennas**
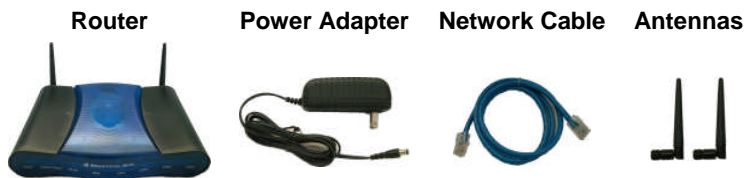
2 – Gather network information

STEP 2.1

Using an Internet connected computer, click on the Windows Start Button → Run…

STEP 2.2

Type
cmd /k ipconfig /all (space after cmd)
Into the window and click **OK**

STEP 2.3

Write the network information in the spaces provided.

The three letter reference code below the names will be used to indicate where to use these numbers later on.

IP Address: (IP1) _____ . _____ . _____ . _____

Subnet Mask: (SM1) _____ . _____ . _____ . _____

Default Gateway: (DG1) _____ . _____ . _____ . _____

DNS Servers: (1) (NS1) _____ . _____ . _____ . _____

DNS Servers: (2) (NS2) _____ . _____ . _____ . _____

STEP 2.4

Type *Exit* in the command window and press
Enter on the keyboard to close the window.

3 – Connect router for configuration

STEP 3.1

Remove the Router from the Quick Start Kit.
Remove two antennas from the slot in the Quick
Start Kit packaging. Attach the two antennas to
the Router.

STEP 3.2

Connect the **Router** to a power supply and plug it
into a wall outlet.

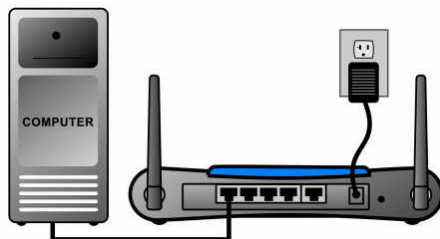**NOTE:** Sound of cooling fans is normal.

STEP 3.3

Confirm the **Power** and **System Status** lights on
the **Router** are solid green and that the **WLAN**
light is flashing steadily.

STEP 3.4

Connect the **LAN4** port of the **Router**
using a **Network Cable** to the network
port on the computer

STEP 3.5

Confirm that the **LAN4** light on the Router is green. This
may take a few seconds.

Note: If the **LAN4** light does NOT turn green, make sure
the **Network Cable** is properly connected on both ends.

4 – Configure Router

STEP 4.1

Understand basic network terminology.

- **Modem** – Device that connects to the line that supplies internet access, i.e. cable, DSL line, telephone line. Some modems are setup manually with a static IP and others have auto configuration with dynamic IP.
- **Router** – Device that allows multiple computers to access a single internet connection through wired and/or wireless networks.
- **Access point** – Device that serves as the WiFi base station allowing wireless access to the wired network.
- **Switch/Hub** – Device that provides a common connection point for network cables.
- **Gateway** – Device that combines the functionality of Modem/Router and sometimes Switch/Hub into one device.
- **BWiFi** – Bountiful WiFi Router which can be configured to have the functionality of an **Access Point**, **Router** and/or **Switch/Hub**.

STEP 4.2

Identify current network scenario. Which of the following scenarios best matches the way the network is configured *before* adding the **Bountiful WiFi Router**:

      A : Modem → PC

      B : Gateway → PC

      C : Gateway/Switch/Hub → PC(s)

      D : Modem → Router(wired or wireless)/Switch/Hub → PC(s)

The letter corresponding to the existing network will be used throughout the rest of the guide to reference configuration scenarios **A**, **B**, **C** and **D**.

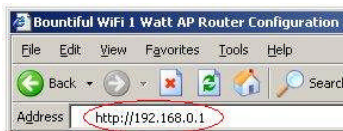**NOTE:**   Do not change any cable connections at this time.

STEP 4.3

Press and hold Reset button for 30 seconds. Wait another 30 seconds for device to reset.

STEP 4.4

Open a web browser, i.e. FireFox or Internet Explorer. In the address bar type **http://192.168.0.1**; press **Enter** on the keyboard.

STEP 4.5

Log in to the Router using User name: **admin** and Password: **admin**.

STEP 4.6

The "Status" screen appears; select the "General" tab.

STEP 4.7

Configure the following parameters on the **General** tab according to the Scenario that matches the network configuration: *(Help button is available next to each item)*

Configuration Scenario	A	B	C	D
General tab settings				
Internet Connection Type:	Static (Manual)	DHCP (Automatic)		
Static IP Address:	IP1 – xxx.xxx.xxx.xxx			
Static IP Netmask:	SM1 – xxx.xxx.xxx.xxx			
Gateway:	DG1 – xxx.xxx.xxx.xxx			
Name Server 1:	NS1 – xxx.xxx.xxx.xxx			
Name Server 2:	NS2 – xxx.xxx.xxx.xxx			
Local IP Address:	192.168.0.1	IP1 – xxx.xxx.xxx.**254**		
Local Netmask:	255.255.255.0	SM1 – xxx.xxx.xxx.xxx		
DHCP Server:	Enable	Disable		

NOTE: Reference numbers refer to Gather Network Information – Step 3.

STEP 4.8

Scroll to the bottom of the screen and press Submit.

STEP 4.9

Choose NOT to reboot the **Router** at this time.
Select the "Wireless" tab.

STEP 4.10

Configure the following parameters on the **Wireless** tab according to the Scenario that matches the network configuration:

Network Scenario	A	B	C	D
Wireless tab settings				
Wireless SSID	Choose a wireless network ID			
Wireless Authentication	Open System			

NOTE: After initially testing the system it is recommended that you enable wireless authentication to protect the network and computers from other wireless users in the area. For help with this see Solution 5 at the end of this guide.

STEP 4.11

Scroll to the bottom of the screen and press Submit.

Submit

STEP 4.12

Reboot **Router**.

that require a reboot. Ple

Reboot

5 – Connect Router for operation

STEP 5.1

Install the **Router** in a location that is central to where the wireless computer(s) will be used.

Use the **Network Cable** to connect the **Router** to the network following the correct Network Scenario:

A : Modem → BWiFi → PC

B : Gateway → BWiFi → PC

C : Gateway/Switch/Hub → BWiFi → PC(s)

D : Modem → Router/Switch/Hub → BWiFi → PC(s)

Note: In scenario **A** the Modem should be connected to the **WAN port** of the BWiFi **Router**. In all other scenarios, connect to a **LAN** port on the BWiFi **Router**. Any wired PC's can be connected to **LAN ports** 1 – 4. In scenario **D** disable any existing wireless network using router configuration pages, do NOT remove from system.

Connection diagram for Scenario **A**.
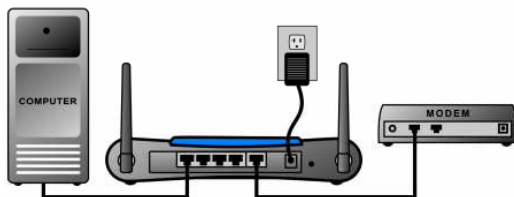
Connection diagram for Scenario **B**.

Scenarios **C** & **D** also use this diagram and connect a router or gateway to the LAN1 port (WAN port is NOT connected).
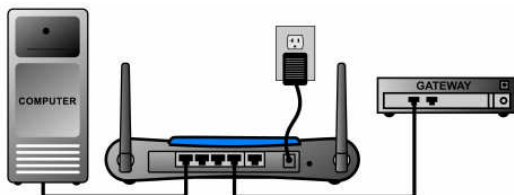
STEP 5.2

Install network adapters in each of the PC's that will be connecting wirelessly. Follow the directions for the particular wireless adapter that you are installing. The Bountiful WiFi Router will communicate with any combination of wireless PCMCIA adapters, USB adapters or PCI adapters in the client PC's.

6 – Testing Connection

STEP 6.1

You are now ready to test for an Internet connection. On each computer, open the web browser to access a website (you can use www.bountifulwifi.com). If you are able to access the Internet, the installation for that computer is successful.

Note: For any computer that is unable to access the Internet, follow **Step 2** and then test for an Internet connection again.

STEP 6.2

In you have completed the appropriate steps above and you still do not have an Internet connection, you need to do a power cycle. Do this with the following steps:

1. Turn off the computer
2. Unplug the **Router**
3. Unplug the modem or gateway
4. Wait 30 seconds
5. Plug in the Modem
6. Plug in the **Router**
7. Turn on the computer

Check to see if you have an Internet connection again. If you still do not, go to **Troubleshooting**.

7 – Trouble shooting guide

SOLUTION 1 – CABLE CHECK

- Verify that the modem or gateway is connected into the proper port of the BWiFi **Router** and that you are using the network cable that came with the Router. If you are running a firewall software program, temporarily disable it.

- If a computer is wired into the BWiFi router, be sure it is connected to one of the numbered **LAN** ports on the router (not the **WAN port**).

SOLUTION 2 – RESET ROUTER

Are you unable to access the Router configuration page? Power on router and connect to computer to a LAN port using Network Cable. Press and hold Reset button for 30 seconds. Wait another 30 seconds for device to reset. Browse to http://192.168.0.1 (User name: **admin** password: **admin**) to configure.

SOLUTION 3 – SSID CHECK

The SSID must be the same on all wireless adapters and on the Router. The SSID is "bwifi" by default. If you choose to change the SSID on Router, be sure to change it to the identical word or phrase on the wireless adapters.

To check the SSID on the wireless adapters: double click the Wireless Network Connection icon in the system tray, view the SSIDs of the available networks and select the correct network from the list.

SOLUTION 4 – MAXIMIZING WIRELESS RANGE

The Bountiful WiFi Router offers better range than other routers; however, range is dependent on environment.

To obtain maximum range:

- Place the Router as high as possible and as close to the center of the coverage area as possible.
- Adjust the antennas to a vertical position.
- Keep the Router away from any large, metal objects.
- In cases of possible interference, try changing the channel. Go to the router's setup page http://192.168.0.1 or http://xxx.xxx.xxx.254 (User name: **admin** password: **admin**) and change the channel (channel 11 is the default). Try channels 1, 6 or 11 as they are the furthest apart from each other.

SOLUTION 5 – WIRELESS SECURITY

Setting up Security on the Wireless Network: Enabling encryption to give me more security with the Wireless network.

1. Enabling encryption will encrypt all the data traveling through the air in the Wireless network. To enable this feature, first log into the **Router**'s setup page by typing the following into the web browser: http://192.168.0.1 or http://*xxx.xxx.xxx*.254 and pressing Enter.
2. Enter User name: **admin** password: **admin**. Once in the router's setup page, select the **Wireless** tab.
   o If all the PC's with wireless adapters are using Windows XP Service Pack 2 then choose **Wireless Authentication: WPA PSK** to enable robust WPA encryption.
   o If any wireless PC's use Windows 98, 2000 or XP SP1 choose **Wireless Authentication: Open/Shared Key Only** to enable WEP encryption.
3. Select ASCII passphrase/key radio button. Enter a 5 digit passphrase for 64 bit encryption and a 13 digit passphrase for 128 bit encryption. Save this word or phrase. See User Manual for additional security options.
4. Scroll down and click the Submit button, then Reboot. You now have encryption set on the router.
5. Click on the Wireless network settings icon in the system tray on one of the computers.
6. When the **Wireless Network Connection** wizard appears, select the network from the list and enter the correct passphrase to establish a connection. Do this for every computer that has a wireless adapter. Some software/hardware versions require different approaches. Refer to the support documentation for the operating system and the wireless adapter.

SOLUTION 6 – CONTACT TECHNICAL SUPPORT

For additional help or questions, contact Bountiful WiFi technical support:

- Toll free: 877-465-6408
- Email: support@bountifulwifi.com
- Web: www.BountifulWiFi.com